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| <p style="text-align: center;">U.S. DEPARTMENT OF TRANSPORTATION</p> <p style="text-align: center;">FEDERAL AVIATION ADMINISTRATION</p> <p style="text-align: center;">TYPE CERTIFICATE DATA SHEET E00062EN</p> | <p style="text-align: right;">TCDS NUMBER E00062EN<br/>REVISION: 1</p> <p>PRATT &amp; WHITNEY CANADA<br/>MODELS:<br/>PW150A</p> <p style="text-align: right;">August 1, 2001</p> |
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Engines of models described herein conforming with this data sheet (which is part of Type Certificate Number E00062EN) and other approved data on file with the Federal Aviation Administration, meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Federal Aviation Regulations, provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

TYPE CERTIFICATE (TC) HOLDER: Pratt & Whitney Canada Corporation (formerly Pratt & Whitney Canada, Inc.)  
1000 Marie-Victorin  
Longueuil, Quebec  
Canada J4G 1A1

| I. MODELS  | PW150A   |  |  |  |  |
|--|--|--|--|--|--|
| TYPE   | A three spool free-turbine turboprop propulsion engine incorporating two centrifugal compressors, each driven by independent axial turbines, a reverse flow annular combustor, and a two-stage power turbine that drives an offset reduction gearbox. The engine fuel flow is controlled by a Full Authority Digital Electronic Control. |  |  |  |  |
| RATINGS (See NOTES 4 to 6)   | SHAFT HORSEPOWER   |  |  |  |  |
| Maximum takeoff (5 mins), at sea level<br>Equivalent shaft horsepower<br>Shaft horsepower<br>Thrust, pounds<br>Output, RPM | 5492<br>5071<br>843<br>1020  |  |  |  |  |
| Normal takeoff at sea level<br>Equivalent shaft horsepower<br>Shaft horsepower<br>Thrust, pounds<br>Output, RPM            | 4963<br>4580<br>767<br>1020  |  |  |  |  |
| Maximum continuous at sea level<br>Equivalent shaft horsepower<br>Shaft horsepower<br>Thrust, pounds<br>Output, RPM        | 5492<br>5071<br>843<br>1020  |  |  |  |  |
| FUEL TYPE  | See NOTE 10.   |  |  |  |  |
| OIL TYPE   | Synthetic type conforming to the current PWA Specification Number PWA 521 Type II. Refer to PW150A Maintenance Manual No. 3043522 for approved brands.   |  |  |  |  |

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|------|---|---|---|---|--|
| PAGE | 1 | 2 | 3 | 4 |  |
| REV. | 1 | 1 | 1 | 1 |  |

LEGEND: "- -" INDICATES "SAME AS PRECEDING MODEL"

"---" NOT APPLICABLE

NOTICE: ALL PAGES ARE REFORMATTED. SIGNIFICANT CHANGES ARE BLACK-LINED IN THE LEFT MARGIN.

## EQUIPMENT/COMPONENTS

Identified in the Pratt & Whitney Illustrated Parts Catalog (P/N 3043524). For additional information and for output and accessory drive specifications, principal dimensions, weight and center of gravity location, refer to the Installation Manual.

## CERTIFICATION BASIS

FAR 21.29 and FAR 33 effective February 1, 1965, as amended by FAR 33-1 through 33-15. Pursuant to FAR 21.29(a) (1)(ii), the Type Certificate was issued in validation of Transport Canada Certification Standard CAM Chapter 533 Change 4, dated December 30, 1993 which was found to provide a level of safety equivalent to that provided by FAR 33, Amendment 33-15.

Type Certificate E00062EN

| <u>MODEL</u> | <u>APPLICATION DATE</u> | <u>ISSUED/REVISED</u> |
|--------------|-------------------------|-----------------------|
| PW150A       | OCT 25, 1995            | NOV 10, 1998          |

## IMPORT REQUIREMENTS

To be considered eligible for installation on U.S. - registered aircraft, each engine to be exported to the United States shall be accompanied by a certificate of airworthiness for export or certifying statement endorsed by the exporting cognizant civil airworthiness authority and containing the following language:

- (1) This engine conforms to its United States type design (Type Certificate Number E00062EN) and is in a condition for safe operation.
- (2) This engine has been subjected by the manufacturer to a final operational check and is in a proper state of airworthiness.

Reference FAR Section 21.500, which provides for the airworthiness acceptance of aircraft engines or propellers manufactured outside of the U.S. and for which a U.S. type certificate has been issued.

Additional guidance is contained in FAA Advisory Circular 21-23, Airworthiness Certification of Civil Aircraft, Engines, Propellers and Related Products, Imported into the United States.

**NOTES**

| <b>I. MODELS</b>       | <b>PW150A</b>  |  |  |  |  |
|------------------------|--|--|--|--|--|
| NOTE 1.                | <b>MAXIMUM PERMISSIBLE ENGINE OPERATION SPEEDS (RPM)</b> |  |  |  |  |
| Output shaft           |  |  |  |  |  |
| Maximum continuous     | 1020   |  |  |  |  |
| Maximum takeoff        | 1020   |  |  |  |  |
| Normal takeoff         | 1020   |  |  |  |  |
| Transient (20 seconds) | 1173   |  |  |  |  |
| Starting (5 seconds)   | N/A  |  |  |  |  |
| HP Spool               |  |  |  |  |  |
| Maximum continuous     | 31150  |  |  |  |  |
| Maximum takeoff        | 31150  |  |  |  |  |
| Normal takeoff         | See NOTE 7   |  |  |  |  |
| Transient (20 seconds) | 31525  |  |  |  |  |
| Starting (5 seconds)   | N/A  |  |  |  |  |
| LP Spool               |  |  |  |  |  |
| Maximum continuous     | 27000  |  |  |  |  |
| Maximum takeoff        | 27000  |  |  |  |  |
| Normal takeoff         | See NOTE 7   |  |  |  |  |
| Transient (20 seconds) | 27625  |  |  |  |  |
| Starting (5 seconds)   | N/A  |  |  |  |  |

## NOTE 2.

Maximum continuous  
Maximum takeoff  
Normal takeoff  
Transient (20 seconds)  
Starting (5 seconds)

| ENGINE INTERTURBINE TEMPERATURES LIMITS (°C) |  |  |  |  |
|--|--|--|--|--|
| 880  |  |  |  |  |
| 880  |  |  |  |  |
| See NOTE 7                                   |  |  |  |  |
| 920  |  |  |  |  |
| 920  |  |  |  |  |

## NOTE 3.

Maximum continuous  
Maximum takeoff  
Normal takeoff  
Transient (20 seconds)  
Starting (5 seconds)

| MAXIMUM TORQUE LIMITS (FT-LB/N-M) |  |  |  |  |
|-----------------------------------|--|--|--|--|
| 26113/35404                       |  |  |  |  |
| 27680/37529                       |  |  |  |  |
| 26113/35404                       |  |  |  |  |
| 35252/47795                       |  |  |  |  |
| N/A                               |  |  |  |  |

## NOTE 4.

The engine ratings are based on dry sea level static ICAO standard atmospheric conditions, with no external accessory loads and no airbleed. The quoted ratings are obtainable on a test stand with the specified fuel and oil, and with the reference intake and exhaust ducts specified in the Installation Manual.

## NOTE 5.

Takeoff ratings that are nominally limited to 5 minutes duration may be used for up to 10 minutes in the event of engine out contingency.

## NOTE 6.

The basic engine mission profile assumes the use of the normal take-off power ratings, and hence the infrequent use of maximum takeoff power. Operators making scheduled use of maximum takeoff power will be required to count each use with an appropriate flight count factor (penalty) as noted in the Airworthiness Limitations Manual.

## NOTE 7.

Normal Takeoff H.P. Spool Speed, L.P. Spool Speed and Max. Inter-turbine Temperature are variable with ambient temperature. Refer to the engine Installation Manual, P/N3049067, for details of these limits.

## NOTE 8.

## ENGINE AIRBLEED LIMITS

Max. external (HP): 10% of inlet airflow.

Max. external (LP): 6% of inlet airflow.

Max. during start: Bleed flow equivalent to that obtained from 0.2 in diameter orifice at the engine high pressure bleed port.

## NOTE 9.

## ENGINE OIL PRESSURE/TEMPERATURE LIMITS AND TANK CAPACITY

Pressure/Temperature Refer to Installation Manual (P/N 3049067)

Tank Capacity Totals: Liters 24.9/U.S. Gallons 6.58  
Usable: Liters 5.6/U.S. Gallons 1.48

NOTE 10.

## ENGINE FUEL

|            |            | Canada               | USA         |
|------------|------------|----------------------|-------------|
|            |            | <u>Specification</u> |             |
| Kerosene   | Jet A, A-1 | CGSB3.23             | ASTM D1655  |
|            | JP8        |                      | MIL-T-83133 |
| Wide Cut   | Jet B      | CGSB3.22             | ASTM D1655  |
|            | JP4        | CGSB3.22             | MIL-T-5624  |
| High Flash | JP5        | 3-GP-24              | MIL-T-5624  |
|            | JP1        |                      | MIL-F-5616  |

Refer to PW150A Maintenance Source Data P/N 3043522 for further details.

Fuel temperature, inlet pressure requirements and fuel system installation are contained in the Installation Manual (P/N 3049067)

NOTE 11.

The un-installed engine meets FAA requirements for operating in icing conditions. This engine also meets the requirements of Canadian Airworthiness Manual 533.68 for operation in icing conditions as defined in Canadian Airworthiness Manual 525/FAR 25 Appendix C when the intake system conforms with PWC installation manual instruction for inertial separation of snow and icing particles.

NOTE 12.

The software for the Electronic Engine Control (EEC) for the PW150A has been developed and tested in accordance with the provisions of "Flight Critical" category (Level A) of RTCA/DO178B.

NOTE 13.

The PW150A engine is equipped with a FADEC which is approved with Time Limited Dispatch Limitations. The dispatch criteria are contained in the Airworthiness Limitations Manual.

NOTE 14.

APPROVED PUBLICATIONS

1. Transport Canada approved PW150A Installation Manual, P/N 3049067
2. Transport Canada approved Parts List for the first production PW150A engine, P/N3121627
3. Transport Canada approved Airworthiness Limitations Manual P/N 3043520.
4. PW150A Engine Manual, P/N 3043523 (This manual references the Airworthiness limitations Manual)
5. PW150A Maintenance Source Data, P/N 3043522 (Issued only to the aircraft manufacturer to be incorporated into the aircraft maintenance manual.

NOTE 15.

The engine, consisting of Turbomachine Module P/N 3121628 and Reduction Gearbox Module P/N 3121630 may be maintained as two modules in accordance with the approved instructions for continued airworthiness.

NOTE 16.

Service Bulletins, structural repair manuals, vendor manuals, aircraft flight manuals, and overhaul and maintenance manuals, which contain a statement that the document is Transport Canada approved, are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only.

NOTE 17.

## Model Description:

- PW150A: Basic Model

NOTE 18.

Engine Serial numbers FA0001 up to and including FA0032 must be modified in accordance with SB35000R1 prior to incorporation into an aircraft with a normal certificate of airworthiness.

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